

REMARKS

Claims 1, 3-32 are pending in the present Application. No claims have been canceled, amended, or added, leaving Claims 1, 3-32 for consideration upon entry of the present Response. Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3-6, 15-16, 18-21, 24, 31, and 32 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato's Injection Molding Handbook (3rd ed; hereinafter the "Rosato"), in view of United States Publication No. 2002/0048691 to Davis, et al. (hereinafter the "Davis"), further in view of Japanese Patent No. 10-306268 to Toshihiko, et al. (hereinafter the "Toshihiko"). Applicants respectfully traverse this rejection.

Rosato, an injection molding handbook, generally provides vastly varied melt temperatures, mold temperatures, and clamp tonnage in very broad terms for a wide range of polymers. However, it does not discuss in any way how certain particular combinations of these parameters can be used to obtain disk assemblies having certain desired properties such as low radial tilt change values of the instant claims.

Davis generally discloses data storage media comprising a homogenous or non-homogenous plastic substrate that can be formed in situ with desired surface features disposed thereon on one or both sides, a data storage layer such as a magneto-optic material also on one or both sides, and an optional protective, dielectric, and/or reflective layers. (Abstract)

Toshihiko is directed to an adhesive composition used in recording media and generally discloses a method of producing an information record medium such as by injection molding. (Abstract) However, this reference does not disclose molding parameters, such as melt temperature, mold temperature, and clamp tonnage, at all.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; and that the prior art relied upon, coupled with knowledge generally

available in the art at the time of the invention, contain some suggestion or incentive that would have motivated one of ordinary skill in the art to modify a reference or combine references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Claim 1 is directed to a method of molding a disk comprising injection molding a polymeric material at a melt temperature of about 330 to about 370°C into a mold having a mold temperature of about 90 to about 130°C and a clamp tonnage of about 12 to about 35 tons to form a disk, and wherein a disk assembly fabricated from the disk exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to about 0.35 degree measured at a radius of 55 millimeters.

Claim 1 is not obvious over Rosato in view of Davis and Toshihiko as these references, either alone or in combination, fail to teach or suggest all elements of the instant claim. Specifically, these references fail to teach or suggest the particular combination of injection molding parameters to obtain the disk assembly having the particular radial tilt property of Claim 1. Disk assemblies having low molded-in stresses or low radial tilt change values are highly desirable for data storage media. It has been unexpectedly found that molding parameters such as mold temperatures, melt temperatures, and clamp tonnage significantly affect the physical stability of the molded disk substrate. (Application, [0011] and [0023]) A particular combination of these injection molding parameters, i.e., melt temperature of about 330 to about 370°C, mold temperature of about 90 to about 130°C, and a clamp tonnage of about 12 to about 35 tons, achieves the desired quality of the disk assembly of claim 1. (Application, [0021], [0022], and [0023])

Rosato fails to teach or suggest the particular combination of the injection molding parameters of instant claim 1. The Examiner has stated that Rosato teaches injection molding a polymeric material at a melt temperature of about 330 to 370°C, a mold temperature of about 90 to 130°C as 160°C meets about 130°C, and a clamp tonnage of about

12 to about 35 tons. (Office Action dated Oct. 12, 2006, third paragraph on page 2) Applicants respectfully disagree for the following reasons.

First, claim 1 requires that the mold temperature be in the range of about 90 to about 130°C. The disclosed mold temperature of 160°C is about 70°C and about 30°C higher than the lower and upper limit of the required temperature range, respectively. A skilled artisan would readily appreciate that a difference in mold temperature of 30°C to 70°C would almost certainly impact the physical properties of molded articles. Given the large difference between the disclosed mold temperature and the instantly claimed mold temperature range, a skilled artisan would not be motivated to use the claimed mold temperature range in light of the teachings of Rosato.

Second, Rosato does not provide any teaching or suggestion on how to combine clamp tonnage with melt and mold temperatures to obtain molded material having low radial tilt change values of the instant claim 1. The Examiner has stated that “it is believed that one of ordinary skill in the art would recognize clamp tonnage as a result-effective variable” and thus “it would have been prima facie obvious ... to choose a clamp tonnage such as Rosato discloses with his other process parameters as part of routine experimentation.” (Office Action dated Oct. 12, 2006, third paragraph on page 2) Applicants respectfully disagree as the combination of the instantly claimed tonnage and the melt and mold temperatures cannot be arrived at as part of routine experimentation in light of Rosato’s teachings. Rosato discloses vastly varied clamp tonnages and hundreds of different clamp tonnage ranges corresponding to different manufactures. (Rosato, pages 77-78) Rosato also teaches that “depending on what plastic is being molded, the IMM clamping force may be from less than 20 tons to thousands of tons. (Rosato, page 60) General disclosure in such broad terms would not motivate a skilled artisan to pick the particular clamp tonnage range of about 12 to about 35 tons of the instant claim among the more than one hundred ranges. Moreover, Rosato discusses clamp tonnage and melt and mold temperatures in different sections of the handbook without any discussion on how to combine the three parameters to make molded articles having certain particular properties. Given the fact that Rosato teaches that each of the three molding parameters can affect the properties of the molded article and discloses

dozens or even hundreds of ranges of each parameter without pointing out any particular ranges as more preferable than others, a skilled artisan would not be able to arrive at the particular combination of the instant claim through routine experimentation. Applicants respectfully point out that the Examiner appears to have used Applicants' own disclosure to select portions of Rosato to allegedly arrive at Applicants' own invention. This kind of hindsight rejection is not permitted under 35 U.S.C. § 103. *In re Fine*; *In re Kahn*, No. 04-1616 (CAFC March 22, 2006) citing *In re Lee*, 277 F.3d 1338, 1343-46 (Fed. Cir. 2002); and *In re Rouffett*, 149 F.3d 1350, 1355-59 (Fed. Cir. 1998).

Additionally, neither Davis nor Toshihiko cures the above deficiency of Rosato as neither reference, either alone or in combination, teaches the unique combination of the melt temperature, the mold temperature, and the clamp tonnage of instant claim 1. Indeed, neither Davis nor Toshihiko discloses melt temperature or clamp tonnage at all, let alone the unique combination of the instant claim 1.

Notwithstanding the above deficiencies of all three references, these references further fail to teach or suggest the requisite property of the disk assembly of instant claim 1. Specifically, Rosato fails to teach or suggest the requisite property of the disk assembly of claim 1, wherein the disk assembly prepared from the molded disks exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to about 0.35 degree measured at a radius of 55 millimeters. In fact, as the Examiner has pointed out, Rosato simply does not discuss this element at all. (Office Action dated Oct. 12, 2006, third paragraph on page 2)

Davis fails to cure the above deficiency of Rosato as Davis fails to teach or suggest the stringent radial tilt change value under stress conditions of instant claim 1. The Examiner has stated that Davis shows "that it is known to carry out a method wherein an injection molded radial disk exhibits a radial tilt change of less than or equal to 0.35." (Office Action dated Oct. 12, 2006, third paragraph on page 2) Applicants respectfully disagree as the precise measuring conditions of the radial tilt change value in Davis are not disclosed. Indeed, measurement conditions in Davis do not appear to be the same as those of instant claim 1, i.e., after 96 hours at 80°C and measured at a radius of 55 millimeters. Davis only discloses that the radial tilt change values are measured in a resting state instead of a

spinning state in the context of discussing the importance of having low disk tilt to allow for optics to remain in focus. (Davis, paragraph [0031]) Davis does not in any way discuss aging the disk under stress conditions (at high temperature for a long time) before measurement.

Toshihiko also fails to cure the above deficiencies of Rosato and Davis as Toshihiko also fails to teach or suggest the stringent radial tilt change value under stress conditions of instant claim 1. The Examiner has stated that Toshihiko shows “that it is known to carry out a method wherein radial tilt is measured after 96 hours at 80°C” and “one of ordinary skill in the art ... use Toshihiko’s radial tilt measuring parameters during Rosato’s molding method in order to insure that the radial tilt measurement are consistent with those required by customer specifications.” (Office Action dated Oct. 12, 2006, page 3) Applicants respectfully disagree for the following reasons. First, the measurement conditions disclosed by Toshihiko are different from those of instant claim 1. For example, Toshihiko fails to disclose that the measurement was conducted at a radius of 55 millimeters. Second, the requirement of this limitation is that the disk assembly molded from the disk material using the particular molding conditions of instant claim 1 meets the stringent radial tilt change value of claim 1 (i.e., less than or equal to 0.35 degree) when measured after 96 hours at 80°C and at a radius of 55 millimeters (i.e., under stress conditions). Even assuming that Toshihiko had disclosed the measurement conditions of instant claim 1, which it did not, this reference simply did not disclose the required limitation that the disk assembly exhibits a radial tilt change value of less than or equal to 0.35 degree when measured under the disclosed conditions. Thus, none of Rosato, Toshihiko, and Davis teaches or suggests this limitation, i.e., a disk assembly ... exhibits a radial tilt change value after 96 hours at 80°C of less than or equal to 0.35 degree measured at a radius of 55 millimeters. A skilled artisan simply would not be motivated to use this criteria during the molding process to obtain the desired disk assembly of instant claim 1. Applicants respectfully point out that the Examiner appears to have used Applicants’ own disclosure to arrive at Applicants’ own invention. As presented above, this kind of hindsight rejection is not permitted under 35 U.S.C. § 103.

As Rosato, Davis, and Toshihiko, either taken alone or combined, fail to teach or suggest all elements of independent claim 1, this claim and its dependent claims 3-6, and 15-16, have not been rendered obvious.

Regarding independent claim 18, Rosato, Davis, and Toshihiko have not rendered the instant claim obvious as these references fail to teach or suggest all of the limitations of the claim. Claim 18 is directed to a multi-step method of molding disks including injection molding a polymeric material to form disks according to a molding model, testing disk assemblies for radial tilt change, creating an updated molding model, and repeating the molding, testing and creating steps to form final disks and a final molding model, wherein disk assemblies fabricated from the final disks exhibit a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters.

As presented above, Rosato only generally discloses broad molding parameters. However, the reference fails to provide the requisite teaching or suggestion to injection mold according to a molding model comprising certain parameters, testing the resulting disks, updating the molding model, and repeating until the molding parameters of the resulting molding model results in the fabrication of disk assemblies exhibiting a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters. Neither Davis nor Toshihiko teaches any mold temperature and clamp tonnage, let alone a multi-step method of molding disks according to a molding model to arrive at the desired disk assemblies of claim 18.

The Examiner has stated that Toshihiko's "repeated research" would comprise the claimed multi-step processes. (Office Action dated Oct. 12, 2006, page 5) Applicants respectfully disagree, as Toshihiko's repeated research would not provide suggestion or motivation for one of ordinary skill in the art to arrive at the multi-step method of the instant claim 18. Toshihiko's repeated research has nothing to do with injection molding disks to result in disk assemblies having reduced radial tilt change values. It is particularly noted that Toshihiko fails to disclose any molding parameters whatsoever. Toshihiko, rather, is directed to use of particular adhesives to provide record media having good curvature properties. Additionally, Davis also fails to disclose mold temperature and clamp tonnage,

let alone a multi-step molding process. Based on the teachings of Rosato, Davis, and Toshihiko, one of ordinary skill in the art would not even look to a multi-step molding process as these references fail to teach or suggest a molding model comprising certain parameters, testing the resulting disks, updating the molding model, and repeating until the molding parameters of the resulting molding model results in the fabrication of disk assemblies exhibiting a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters.

As Rosato, Davis, and Toshihiko, either taken alone or combined, fail to teach or suggest all elements of independent claim 18, this claim and its dependent claims 19-21, 24, 31 and 32 have not been rendered obvious.

Applicants respectfully request reconsideration and removal of the 35 U.S.C. §103(a) rejections against claims 1, 3-6, 15-16, 18-21, 24, 31, and 32.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, and Toshihiko, further in view of United States Patent No. 6,221,536 to Dhar, et al. (hereinafter the “Dhar”). Applicants respectfully traverse this rejection.

Both claims 7 and 8 depend from claim 1 and further define the disk as having a certain percent feature replication. As mentioned in the Specification of the instant application at paragraph [0017], the percent feature replication is based on a comparison of the measurements of the mold stamper features with the measurements of the matching features of the disk that is molded.

Dhar generally discloses a material containing a polymerizable monomer or oligomer, where the material exhibits shrinkage compensation upon polymerization. The material is used to make recording media. Dhar does not disclose molding parameters, such as melt temperature, mold temperature, and clamp tonnage.

For reasons presented above, claim 1 is not obvious over Rosato, Davis, and Toshihiko as these three references fail to suggest or motivate one of ordinary skill in the art to modify the teachings therein to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage as required in claim 1, and these references further fail to teach or suggest the radial tilt value requirement of the claim 1.

Dhar fails to cure the deficiencies of Rosato, Davis, and Toshihiko as Dhar does not even disclose melt temperature, mold temperature, and clamp tonnage, let alone molding disks using the particular combination of molding parameters of the instant claim 1. Dhar, furthermore, fails to teach or suggest the required radial tilt value required by claim 1. Thus, based on the teachings of Rosato, Davis, Toshihiko, and Dhar, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt or good percent feature replication as none of these references teaches or suggests the importance of molding parameters for either feature replication or for final disk assembly dimensional stability.

Accordingly, Applicants respectfully request reconsideration and removal of the 35 U.S.C. §103(a) rejections regarding claims 7 and 8.

Claims 9, 10, and 14 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, and Toshihiko, in view of United States Publication No. 2002/0137840 to Adedeji, et al. (hereinafter the “Adedeji”). Applicants respectfully traverse this rejection.

Claims 9, 10, and 14 all ultimately depend from claim 1 and further define the polymeric material used to mold a disk.

Adedeji generally discloses a thermoplastic composition including specified amounts of a poly(arylene ether), a homopolymer of an alkenyl aromatic monomer, a polyolefin, a hydrogenated block copolymer, and an unhydrogenated block copolymer, but the composition is substantially free of any rubber-modified poly(alkenyl aromatic) resin.

For reasons presented above, claim 1 is not obvious over Rosato, Davis, and Toshihiko as these references fail to suggest or motivate one of ordinary skill in the art to modify the teachings therein to arrive at the particular combination of the melt temperature, the mold temperature, and the clamp tonnage as required in claim 1 as well as the required radial tilt change value of disk assemblies fabricated by the disk. Adedeji fails to cure the deficiencies of these references as Adedeji does not provide the missing teaching, suggestion, or motivation. In fact, Adedeji does not even disclose molding parameters, such as melt temperature, mold temperature, and clamp tonnage for molding disks using the particular

molding parameters of the instant claim. Adedeji also does not teach or suggest molding disks to have the required radial tilt change value when prepared into disk assemblies. Since Adedeji in combination with Rosato, Davis, and Toshihiko fail to suggest or motivate one of ordinary skill in the art to modify the teachings therein to result in the particular combination of the melt temperature, the mold temperature and the clamp tonnage as required in claim 1, and further fail to teach or suggest the radial tilt change value, claim 1 and its dependent claims 9, 10, and 14 have not been rendered obvious over Rosato, Davis, and Toshihiko in view of Adedeji.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding claims 9, 10, and 14.

Claim 11 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, and United States Patent No. 6,407,200 to Singh, et al. (hereinafter the “Singh”), further in view of United States Patent No. 6,306,953 to Fortuyn, et al. (hereinafter the “Fortuyn”). Applicants respectfully traverse this rejection.

Singh is generally directed to a method of preparing a poly(arylene ether) including oxidatively polymerizing a monohydric phenol in solution, concentrating the solution by removing a portion of the solvent to form a concentrated solution having a cloud point, T_{cloud} , and combining the concentrated solution with an anti-solvent to precipitate the poly(arylene ether), wherein the concentrated solution has a temperature of at least about $(T_{\text{cloud}} - 10^{\circ}\text{C})$ immediately before it is combined with the anti-solvent. Singh does not teach injection molding parameters or radial stability parameters of disk assemblies.

Fortuyn is generally directed to reduced emissions of styrene and butanal by thermoplastic compositions comprising poly(arylene ether), a polystyrene resin, optionally rubber, and an activated carbon derived from vegetable matter.

Claim 11 ultimately depends from claim 1. As presented above, claim 1 is not obvious over Rosato, Davis, and Toshihiko. Neither Singh nor Fortuyn cure the deficiencies of Rosato, Davis, and Toshihiko as these references do not provide the missing teaching, suggestion, or motivation. Based on the teachings of Rosato, Singh, and Fortuyn, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a

disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 11.

Claim 12 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of United States Patent No. 4,727,093 to Allen, et al. (hereinafter the “Allen”). Applicants respectfully traverse this rejection.

Allen generally discloses low density particles or beads of polyphenylene ether or polyphenylene ether-polystyrene blends provided by incorporation of a suitable blowing agent such as pentane into the resin mixture, flowed by expansion of the resin particles by exposure temperatures near the T_g of the blend. Allen does not teach injection molding parameters or disk assembly dimensional stability.

Claim 12 ultimately depends from claim 1. As presented above, claim 1 is not obvious over Rosato, Davis, Toshihiko, and Singh. Allen also fails to cure the deficiencies of Rosato, Davis, Toshihiko, and Singh as this reference does not provide the missing teaching, suggestion, or motivation. Based on the teachings of Rosato, Singh, and Allen, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 12.

Claim 13 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of United States Patent No. 5,872,201 to Cheung, et al. (hereinafter the “Cheung”). Applicants respectfully traverse this rejection.

Cheung generally discloses substantially random interpolymers comprising (1) ethylene, (2) one or more aromatic vinylidene monomers or hindered aliphatic or cycloaliphatic vinylidene monomers, and (3) one or more olefinic monomers having from 3 to about 20 carbon atoms. Cheung does not disclose specific injection molding parameters or disk assembly dimensional stability.

Claim 13 ultimately depends from claim 1. As presented above, claim 1 is not obvious over Rosato, Davis, Toshihiko, and Singh. Cheung also fails to provide the missing teaching or suggestion to modify the teachings of the references to achieve the particular molding parameters and radial tilt value as required by claim 1. Based on the teachings of Rosato, Davis, Toshihiko, Singh, and Cheung, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 13.

Claim 17 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, and Toshihiko, further in view of United States Patent No. 5,286,812 to Karasz, et al. (hereinafter the “Karasz”). Applicants respectfully traverse this rejection.

Karasz generally discloses thermoplastic compositions of an aromatic polyimide and an aromatic polyethersulfone. Blends of poly(2,6-dimethyl-1,4-phenylene oxide) is briefly disclosed as a miscible blend. Karasz does not disclose specific injection molding parameters.

Claim 17 is directed to a method of molding a disk, comprising injection molding a polymeric material at a melt temperature of about 330 to about 370°C into mold having a mold temperature of about 90 to about 130°C and a clamp tonnage of about 12 to about 35 tons to form a disk, wherein the polymeric material comprises poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene. For similar reasons that claim 1 is not obvious over Rosato, Davis, and Toshihiko, claim 17 is not obvious over Rosato, Davis, and Toshihiko because these references fail to teach or suggest the specified combination of the melt temperature, the mold temperature, and the clamp tonnage, and especially as required for poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene in claim 17. Karasz also fails to teach or suggest the particular molding parameter combination. Karasz does not even disclose any melt temperature, mold temperature, and clamp tonnage.

It has been found that by careful selection of molding parameters, disks can be prepared having reduced molded-in stresses. (Application, [0011]) Molding parameters such as mold temperature and melt temperature can significantly affect the quality of a disk substrate in terms of its physical stability, and careful choice of these molding conditions results in a molded disk substrate having increased dimensional stability. (Application, Table 1 and [0057]) The molding parameters also have a significant effect on the disk's feature replication as well. (Application, [0011])

Rosato, Davis, and Toshihiko do not provide one of ordinary skill in the art with a reasonable expectation of obtaining the claimed process as the references do not teach or suggest the claimed molding parameters for poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene. Indeed, the average melting temperatures for polystyrene ("PS") and polyphenylene oxide ("PPO") disclosed in Table 4-8 of Rosato are 100°C and 120°C, respectively. These temperatures are significantly lower than the required temperatures of about 330°C to about 370°C of claim 17. Accordingly, one of ordinary skill in the art would be motivated to use a significantly lower melt temperature and move away from the melt temperatures claimed.

As Rosato, Davis, Toshihiko, and Karasz teach away from the claimed invention, the Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 17.

Claim 22 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, and Toshihiko, further in view of United States Patent No. 5,525,645 to Ohkawa, et al., (hereinafter the "Ohkawa"). Applicants respectfully traverse this rejection.

Ohkawa generally discloses a resin composition for optical molding which comprises (a) an actinic radical-curable and cationically polymerizable organic substance and (b) an actinic radiation-sensitive initiator for cationic polymerization. Ohkawa does not teach or suggest injection molding parameters.

Claim 22 depends from claim 18, which is not obvious over Rosato, Davis, and Toshihiko as previously discussed. Rosato, Davis, and Toshihiko fail to provide the requisite teaching or suggestion to injection mold according to a multi-step molding model comprising

certain parameters, testing the resulting disks, updating the molding model, and repeating until the molding parameters of the resulting molding model results in the fabrication of disk assemblies exhibiting a radial tilt change value after aging of less than or equal to about 0.35 degree measured at a radius of 55 millimeters. Ohkawa fails to cure the deficiencies of Rosato, Davis, and Toshihiko as Ohkawa does not even teach or suggest injection molding, let alone radial tilt of a disk. Based on the teachings of Rosato, Davis, Toshihiko, and Ohkawa, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection against claim 22.

Claim 23 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, and Ohkawa, further in view of Dhar. Applicants respectfully traverse this rejection.

Claim 23 ultimately depends from claim 18. As presented above, claim 18 is not obvious over Rosato, Davis, Toshihiko, and Ohkawa. Dhar also fails to teach or suggest a multi-step method of molding disks or the required radial tilt value. Based on the teachings of Rosato, Davis, Toshihiko, Ohkawa, and Dhar, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 23.

Claims 25-27 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, further in view of Singh. Applicants respectfully traverse this rejection.

Claims 25-27 ultimately depend from claim 18. As presented above, claim 18 is not obvious over Rosato, Davis, and Toshihiko. Singh also fails to teach or suggest a multi-step method of molding disks according to molding parameters and also fails to teach or suggest

the required radial tilt change value. Based on the teachings of Rosato, Davis, Toshihiko, and Singh, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejections regarding claim 25-27.

Claim 28 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Fortuyn. Applicants respectfully traverse this rejection.

Claim 28 ultimately depends from claim 18. As presented above, claim 18 is not obvious over Rosato, Davis, Toshihiko, and Singh. Fortuyn also fails to teach or suggest a multi-step method of molding disks and also fails to teach or suggest the required radial tilt change value. Based on the teachings of Rosato, Davis, Toshihiko, Singh, and Fortuyn, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 28.

Claim 29 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, and Singh, further in view of Allen. Applicants respectfully traverse this rejection.

Claim 29 ultimately depends from claim 18. As presented above, claim 18 is not obvious over Rosato, Davis, Toshihiko, and Singh. Allen also fails to teach or suggest a multi-step method of molding disks and also fails to teach or suggest the required radial tilt change value. Based on the teachings of Rosato, Davis, Toshihiko, Singh, and Allen, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 29.

Claim 30 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Rosato, Davis, Toshihiko, Singh, further in view of Adedeji. Applicants respectfully traverse this rejection.

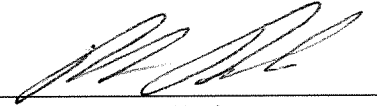
Claim 30 ultimately depends from claim 18. As presented above, claim 18 is not obvious over Rosato, Davis, Toshihiko, and Singh. Adedeji also fails to teach or suggest a multi-step method of molding disks and also fails to teach or suggest the required radial tilt change value. Based on the teachings of Rosato, Davis, Toshihiko, Singh, and Adedeji, one of ordinary skill in the art would not even look to molding parameters as the means to obtain a disk assembly having reduced radial tilt as neither of these references teach or suggest the importance of these parameters to final disk assembly dimensional stability.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection regarding claim 30.

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the rejections and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Response or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,
CANTOR COLBURN LLP

By 
Roberta L. Pelletier
Registration No. 46,372

Yong Zhao
Registration No. 57,014

Date: December 12, 2006
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002
Telephone (860) 286-2929
Facsimile (860) 286-0115
Customer No.: 43249